

## ABSTRACT

It is possible to calibrate an I(Q) signal without interrupting the modulation operation of an orthogonal modulation device. The orthogonal modulation device includes: an adder (14 (24)) for outputting a pseudo noise superimposed signal obtained by adding the I(Q) signal to a pseudo noise PN; a signal conversion section (16 (26)) for mixing the pseudo noise superimposed signal with a local signal of a predetermined local frequency and outputting a converted signal; a phase shifted local signal multiplier (54) for multiplying the local signal whose phase has been changed by a phase shifted device (50) with the converted signal; a pseudo noise multiplier (56) for multiplying the output of the phase shifted local signal multiplier (54) with the pseudo noise; an integrator (58) for integrating the output of the pseudo noise multiplier (56); and an error measurement section (70) for measuring the error of the I(Q) signal according to the output of the integrator (58). Since an output of an IF signal output adder (52) can be used as an IF signal, it is possible to perform calibration without interrupting the modulation operation.